

**Regional Mitigation and Conservation Strategy for Agate Desert Vernal Pool
Wetlands
Habitat and Species**

Oregon Department of State Lands, U.S. Army Corps of Engineers, U.S. Fish and
Wildlife Service, and U.S. Environmental Protection Agency

Proposed Action

The Oregon Department of State Lands (DSL), U.S. Army Corps of Engineers (Corps), and U.S. Fish and Wildlife Service (FWS) and the U.S. Environmental Protection Agency (EPA)(collectively, the Agencies), propose to establish guidelines and standards intended to improve conservation of vernal pool habitat complexes and associated plant and animal species in the Agate Desert area of Jackson County, Oregon. These guidelines will also streamline regulatory requirements of Oregon's Removal/Fill Law, and the Federal Clean Water and Endangered Species Acts to provide greater certainty and faster decisions for permit applicants whose actions impact these resources. Many of the specific guidelines being proposed by the Agencies evolved from a public, regional planning effort undertaken by Jackson County and its Agate Desert Stakeholders Committee. This ongoing planning effort has produced extensive inventories of vernal pool habitat complexes in the vicinity of White City and examined several potential strategies to conserve associated wetland resources and rare species while still accommodating economic development. The Agencies have been active participants in this effort.

Specifically, the Agencies propose to:

1. Establish a single package of standards and guidelines through which applicants could concurrently satisfy the requirements of Oregon's Removal/Fill Law (R-FL), the Federal Clean Water Act (CWA) and Endangered Species Act (ESA) as they apply to mitigation requirements for impacts to vernal pool wetlands, vernal pool fairy shrimp, vernal pool fairy shrimp Critical Habitat, large-flowered woolly meadowfoam, and Cook's lomatium.
2. Develop programmatic regulatory approval mechanisms to allow for streamlined approval of proposed projects that use or apply the mitigation actions and standards described later in this notice. DSL will propose issuance of a General Authorization; the Corps will propose issuance of a Regional General Permit; and, FWS will produce a Biological Opinion and associated Incidental Take Statement that programmatically address the impacts of the Agencies' actions and of the activities that are likely to receive regulatory approval as a result of those actions. The Agencies anticipate that under this strategy, permit decisions could be issued in 30-60 days, rather than the current 120 day timeline.
3. Apply the standards, guidelines, and programmatic regulatory approval mechanisms described in this notice to the following activities: a) Commercial, residential, and

industrial development; b) Installation and maintenance of utilities and infrastructure associated with such developments; c) Road development and maintenance, including road crossings; d) Wetland restoration and enhancement, and; e) Sand, gravel, and aggregate removal, except from within any active stream channel, bed or channel migration zone.

4. Implement the actions described above for a period of three years or until 500 acres of existing vernal pool habitat complex have been impacted, whichever occurs first. The Agencies may choose to extend and renew their action beyond these thresholds if they determine that doing so will benefit the long-term conservation of vernal pool habitats, species, and associated resources.

5. The provisions of this program will apply within the geographic area identified in Figure 1. This area generally conforms to the boundaries of the Agate-Winlo soil series as mapped by the Natural Resources Conservation Service's Jackson County soil survey and is part of the Klamath Mountain vernal pool region as described in the FWS' final Recovery Plan for Vernal Pool Ecosystems in California and southern Oregon (Recovery Plan) (USFWS 2005).

The agencies intend to encourage expansion of mitigation and conservation banking, and other types of large-scale mitigation projects by accommodating deviations from the "sequencing" or hierarchy of impact reduction measures currently emphasized for wetland protection. Regulations and guidelines established by the Corps, EPA, and DSL for protection of wetland resources generally require that permit applicants adhere to the following sequence: avoid impacts; minimize unavoidable impacts; then mitigate for any remaining impacts. However, recent studies by the National Academies of Science (Compensating for Wetland Losses Under the Clean Water Act, 2001) and others have concluded that this sequencing may not always result in optimal conservation of wetland resources or attainment of broader ecosystem objectives, including those related to ESA compliance and recovery of listed species. Recently proposed changes to Federal wetland protection guidance recognized a need to accommodate deviations from sequencing to better support ecosystem-based priorities and objectives for aquatic resources within a watershed context. The program proposed in this public notice will be consistent with this more flexible approach. It will emphasize development of mitigation and conservation measures that satisfy specific conservation-based standards (described later in this notice) rather than measures to avoid and minimize impacts to some wetland areas.

The Agencies will exclude specific projects from the provisions of this program if the projects will individually or cumulatively result in significant adverse environmental impacts. Such projects will remain subject to individual regulatory permitting. Projects that would adversely impact vernal pool habitats with the highest degree of ecological function and conservation value will most likely be among those excluded from this program. These determinations will be made on a case-by-case basis, but the Agencies expect that exceptions allowing impacts to high ecological function vernal pools will be rare.

The Agencies also intend to include “out-of-kind” mitigation for impacts to some non-vernal pool wetlands within the programmatic mechanisms above if the mitigation for such impacts consists of measures (as described in this notice) that benefit vernal pool habitat complexes, and if the impacted wetlands have substantially lower conservation priority than vernal pool habitats within the region covered under this notice. Impacts to the following wetland types will not be included in this provision: a) any wetlands that fall below the typical 2-year high water elevation of any fish-bearing stream; b) bogs and fens, c) native wet prairie, and; d) mature forest wetlands. Out-of-kind mitigation will not be allowed for impacts to vernal pool habitats.

This regional mitigation and conservation strategy will not modify existing regulations or preclude alternate mitigation actions available under existing regulations. As usual, such alternate actions will be considered on a case-by-case basis under each of the applicable regulations.

Purpose and Need

Vernal pools are seasonal wetlands that form only in regions where unique soil and climatic conditions exist. During fall and winter rains, water collects in shallow depressions between the mounds where downward percolation of water is prevented by the presence of a duripan (hardpan) below the soil surface. When rains decrease and the weather warms, the water evaporates and percolates laterally, and the pools generally disappear by April or May. These shallow depressions then remain relatively dry until late fall and early winter with the onset of greater precipitation and cooler temperatures. Vernal pools thus consist of unusual “flood and drought” habitat conditions to which certain plants and animals have specifically adapted.

In Oregon, vernal pools occur within a very limited range, primarily in the Agate Desert area of Jackson County. Historically, vernal pool habitat complexes were a prominent feature of the Agate Desert landform. Approximately 30 percent of the Agate-Winlo soils occur within five municipal growth boundaries (Figure 1). However, land use and development has altered nearly sixty percent of the historic range of the Agate Desert landform. The remainder of vernal pool habitat within the landform is either severely degraded or occurs along the edges of the landform where vernal pools are weakly expressed. It is estimated that only 10-20 percent of the original vernal pool topography and hydrology in the Agate Desert remains intact and ecologically functional. (Oregon Natural Heritage Program (ONHP). 1997. Agate Desert Vernal Pool Habitat: Preliminary Mapping and Assessment.)

The Agate Desert landform occurs in a rapidly developing area of Oregon and its relatively flat topography makes it highly desirable for development. Much of the area, particularly around White City, is expected to be subject to ongoing urbanization as the regional population expands. Remaining vernal pool habitat is highly vulnerable to destruction, degradation, and isolation as a result of this growth.

Among the unique biota associated with the remaining vernal pools of the Agate Desert

are a threatened species of vernal pool fairy shrimp (*Branchinecta lynchi*) (fairy shrimp), a newly discovered species of Cladoceran, *Dumontia oregonensis*, representing a previously undescribed family, and two endangered species of plants, large-flowered woolly meadowfoam (*Limnanthus floccosa* ssp. *grandiflora*)(meadowfoam) and Cook's lomatium (*Lomatium cookii*)(lomatium)(desert parsley) The vernal pool fairy shrimp was listed as threatened under the Federal ESA in 1994 and critical habitat was designated in 2003. The FWS published the final Recovery Plan in 2006. The Recovery Plan includes recovery objectives for the fairy shrimp (USFWS 2005). Meadowfoam and lomatium were listed as endangered under the Federal ESA in 2002. Critical habitat for meadowfoam and lomatium has not been designated. A final recovery plan for meadowfoam and lomatium is scheduled to be published in the fall of 2007 (USFWS 2006).

For these reasons, Agate Desert vernal pools have been designated as "Wetlands of Special Interest for Protection" by the state of Oregon and the Department of State Lands. Vernal pool habitat complexes and associated plant and animal species have also been prioritized for conservation actions in resource management strategies such as the FWS' recovery plans for vernal pool ecosystems in California and Oregon, the Oregon Department of Fish and Wildlife's Oregon Conservation Strategy, the Defenders of Wildlife's Oregon Biodiversity Project, and the Nature Conservancy's Ecoregional Assessment.

Developers have been frustrated by the differing requirements of the several regulations, and desire certainty and clarity in the permitting process. Given the urgency of these needs and the relatively small area of vernal pool wetland habitat remaining, DSL, the Corps, and U.S. Environmental Protection Agency have been considering measures to improve their program effectiveness. Similarly, the FWS has increased its efforts to review proposed land and water development projects for compliance with section 9 of the ESA, which prohibits unauthorized harm or harassment of threatened or endangered species.

The intent of the actions proposed in this notice by the Agencies is to reduce conflicts between development and wetlands, provide increased certainty and efficiency to both conservation and development interests, and to simplify and streamline the procedural steps associated with conservation and development activities.

Through this regional mitigation strategy, the following will be addressed:

- Clarification of the methods and standards by which applicants/project proponents can satisfy the requirements of the Agencies' regulations for the vernal pool resources.
- Identification of a suite of mitigation measures that will meet the requirements of each of the regulatory agencies.
- Establishment of mitigation measures and standards that address the applicable

regulations in a unified, comprehensive, and concurrent package.

- Increased opportunities for the development of meaningful conservation actions by providing biologically appropriate standards.

Mitigation Issues, Definitions, and Considerations

A. Impacts to vernal pool wetlands and associated species.

The Agencies regulate impacts to vernal pool wetlands and listed species. Impacts subject to the agencies jurisdiction include those that directly or indirectly adversely affect the size, timing, duration, flows, and quality of water, plant and animal species composition, or ecological connectivity among vernal pool habitats. A project may cause indirect impacts to vernal pool wetland and listed species if it affects uplands adjacent to these sites. Examples of such impacts include grading, filling, vehicle ruts, polluted runoff, leveling, ditching, or weed invasion. If any habitat within a vernal pool complex (an area including both wetland pools and upland mounds) is affected, then all remaining habitat within the complex is considered indirectly affected. If any part of a vernal pool is affected, then the entire pool is considered directly affected.

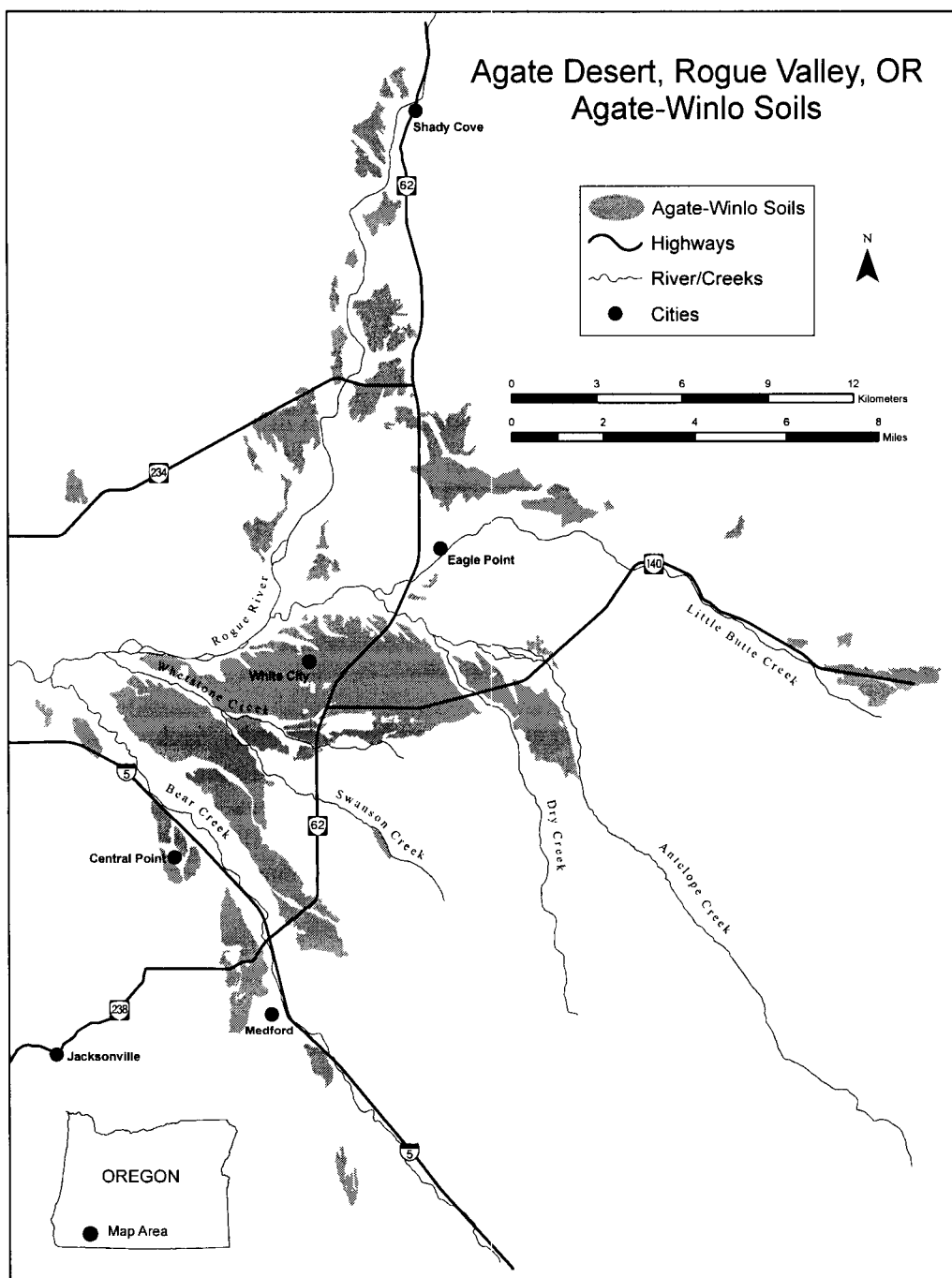
B. Mitigation actions to address the above impacts.

Several different kinds of mitigation actions may be acceptable. Each of the following approaches will include requirements that the treatment result in a site that meets the performance standards listed in section E, and each site must be protected from future conflicting land uses by a legal restriction that will run with the title, and a funding source must be established for long-term site management and maintenance.

1. Categories of Mitigation Actions—Definitions:

- a) **Restoration mitigation** is defined as actions that re-establish the presence and function of vernal pool wetlands, and associated uplands in areas where they do not currently exist but did exist historically as evidenced by historic aerial photos and by the continuing presence of native pool material, appropriate general hydrological regime, and intact underlying hardpan. Restoration actions must result in a return of the site-specific topographic, hydrological, and vegetative conditions necessary for the development and sustainability of ecologically functional vernal pool habitats. A critical focus of restoration action will be on reestablishment and maintenance of appropriate hydrology.

Figure 1: Agate-Winlo Soils in the Rogue Valley



This approach to mitigation is expected to be successful in those areas where large acreages of hardpan are still intact, but not where the hardpan has been perforated. Re-establishing native plant dominance to meet performance standards is expected to be challenging because of soil disturbance.

Vernal pool restoration may include:

- 1) Removing fill material from previously existing pools, removing tire ruts and other surface disturbance/alteration from historic pools and associated mounds, rebuilding leveled mounds, and otherwise reestablishing topographic conditions and configurations that previously occurred on the site;
- 2) Removing ditches, drainage systems, or other measures necessary to re-establish the frequency and duration of inundation and saturation to existing or restored pool topography; and
- 3) Removing a plant community that is dominated by non-native and/or non-vernal pool associated plant species and reestablishing a native plant community adequately representative of natural conditions to existing or restored pool, , and associated upland topography.

In most instances, restoration actions will need to utilize native plant seed sources appropriate to the local area in order to quickly establish an adequate vegetative community.

Long-term site protection and management will be required to sustain the restored conditions.

- b) **Enhancement mitigation** is defined as improving the level of function of existing wetlands by reversing the cause of degradation, by applying some sort of treatment to the site or adjacent lands that yields a sustainable net gain in functions. The enhancement activity must result in a measurable, sustainable gain in functions relative to the current condition and as compared to the reference standard vernal pool site. Enhancement represents a net loss of wetland acreage, so the functional gains need to be substantial.

Enhancement will be appropriate in situations where the general hydrologic regime, micro-topography, underlying hardpan, and most components of native plant species communities remain intact, but full ecological function is limited by altered local (site-specific) hydrology (water depth, frequency & duration of saturation, and water quality) or the presence of non-native plant species in the wetlands, mounds, or associated uplands, etc.

Enhancement actions may include removal of ditches adjacent to vernal pool complexes, repair of vehicle ruts or leveling, weed control measures that reduce

the presence of non-native plants and increase presence of native plant species, and establishment or improvement of upland buffers that protect vernal pool complexes against ecological edge effects and effects from adjacent and nearby land use.

For vernal pools, enhancement alone may not always be a viable option because the causes of degradation in the Agate Desert area – interruption of hydrology by roadside ditches, weed invasion, off-road vehicle damage, land leveling – are not normally reversible without an extensive and sustained effort.

Long-term site protection and management will be required to sustain the restored conditions.

- c) **Protect & manage mitigation** is defined as permanently protecting from adverse land uses and actively managing a site to sustain current high quality functions of existing vernal pool wetland complexes. High quality vernal pool habitats are those that currently: exceed performance standards related to vegetative, topographic, and hydrological conditions and support populations of vernal pool fairy shrimp and other listed or at-risk vernal pool-associated species; meet or exceed the 70th percentile rank of total function based on a credible, comprehensive habitat assessment; or are otherwise determined by the Agencies to provide the highest quality of ecological function (USFWS 2005, 2006). The Agencies expect this mitigation approach to be the most successful mitigation option, because it has the greatest likelihood of sustaining existing rare species, habitats, native vegetation, and hydrology.

Ongoing management will be necessary to control invasive weeds species and to sustain existing rare species from adverse impacts. This may include treatments such as selective use of herbicides, prescribed fire, fence maintenance, or repair of vandalism. This option represents a net loss of wetland acres, so the functional values must be substantial and probability of long-term sustainability must be high.

- d) **Creation mitigation** is defined as establishing new wetlands where none existed before. Creation of new vernal pool habitats is not expected to be a viable option for vernal pool mitigation because of the challenges of replacing the unique combination of landscape position, presence of the impermeable hardpan, sorting of soil texture between mounds and pools, and the narrow habitat requirements of the plants adapted to vernal pools sites. If a creation project can be constructed and subsequent monitoring demonstrates success in achieving the performance standards consistently after 5 years, then the agencies may grant mitigation credit subject to a ratio negotiated on a case-by-case basis. One version of creation mitigation, called “packing,” or construction of additional pools in between existing vernal pools, typically does not achieve desired function because the interactions between the pools and surrounding upland mounds cannot be duplicated. No mitigation credit will be provided for “packing”.

2. Mitigation Ratios and Credits.

- a) Replacement of values lost to impacts— Specific ratios will determine how much conservation value adversely impacted by a development activity will need to be “replaced” via use of each of the mitigation categories described above. In order to encourage the establishment of mitigation areas within the portion of the Agate Desert that is currently most subject to imminent habitat losses— namely, White City and its environs— a lower mitigation ratio will apply when impacts to vernal pool habitats and species are mitigated through use of mitigation areas within the boundaries of the Wetland Conservation Plan (WCP) study area established for the Rogue Valley Council of Governments’ vernal pool planning process. Accordingly, the Agencies propose the following two-tiered system of mitigation ratios:
 - 1) Restoration— For restoration mitigation, the mitigation ratio for use of mitigation areas within the WCP shall be 2 acres restored for 1 acre lost. For use of mitigation areas outside the WCP, the mitigation ratio shall be 3 acres restored for 1 acre lost.
 - 2) Enhancement— For enhancement mitigation, the mitigation ratio for use of mitigation areas within the WCP shall be 5 acres restored for 1 acre lost. For use of mitigation areas outside the WCP, the mitigation ratio shall be 7.5 acres restored for 1 acre lost.
 - 3) Protection & Management— For protection and management mitigation, the mitigation ratio for use of mitigation areas within the WCP shall be 8 acres restored for 1 acre lost. For use of mitigation areas outside the WCP, the mitigation ratio shall be 12 acres restored for 1 acre lost.
 - 4) Creation— For creation mitigation, the mitigation ratio for use of mitigation areas within the WCP shall be determined on a case by case basis.
- b) Assigning Value to Proposed Mitigation Projects— The following ratios will be used to determine the amount of credits that are allocated to mitigation areas: 5:1, 2:1, and 8:1 respectively for Enhancement, Restoration, and Protection and Management regardless of the location of the mitigation area with respect to the WCP boundary.
- c) Bonus Credits— As an incentive to reward achievement of superior conservation results, the agencies may award additional credits beyond those derived from the above ratios. To earn such bonus credits, mitigation projects must meet and exceed the performance standards described in section E and satisfy one or more of the following conditions. The number of such bonus credits may be negotiated at the time that a mitigation plan is submitted to the agencies, or at a later date, if baseline conditions were well documented.

- 1) Mitigation areas with a demonstrated gain in presence of one or more state or Federal, candidate, threatened, or endangered vernal pool associated plants or animals beyond conditions present at the time the mitigation area was established, and that possess conditions representing a high likelihood of sustaining these gains over time.
- 2) Mitigation areas sited within or adjacent to designated fairy shrimp critical habitat units # 2 and # 3 (see Figure 2); or
- 3) Mitigation areas that are contiguous or very proximal to designated conservation lands that provide benefits to vernal pool habits and species, thereby expanding the effective area providing those ecological values; and
- 4) Mitigation areas that substantially increase the ecological connectivity between other lands that are expected to support long-term conservation of vernal pool habits and species.

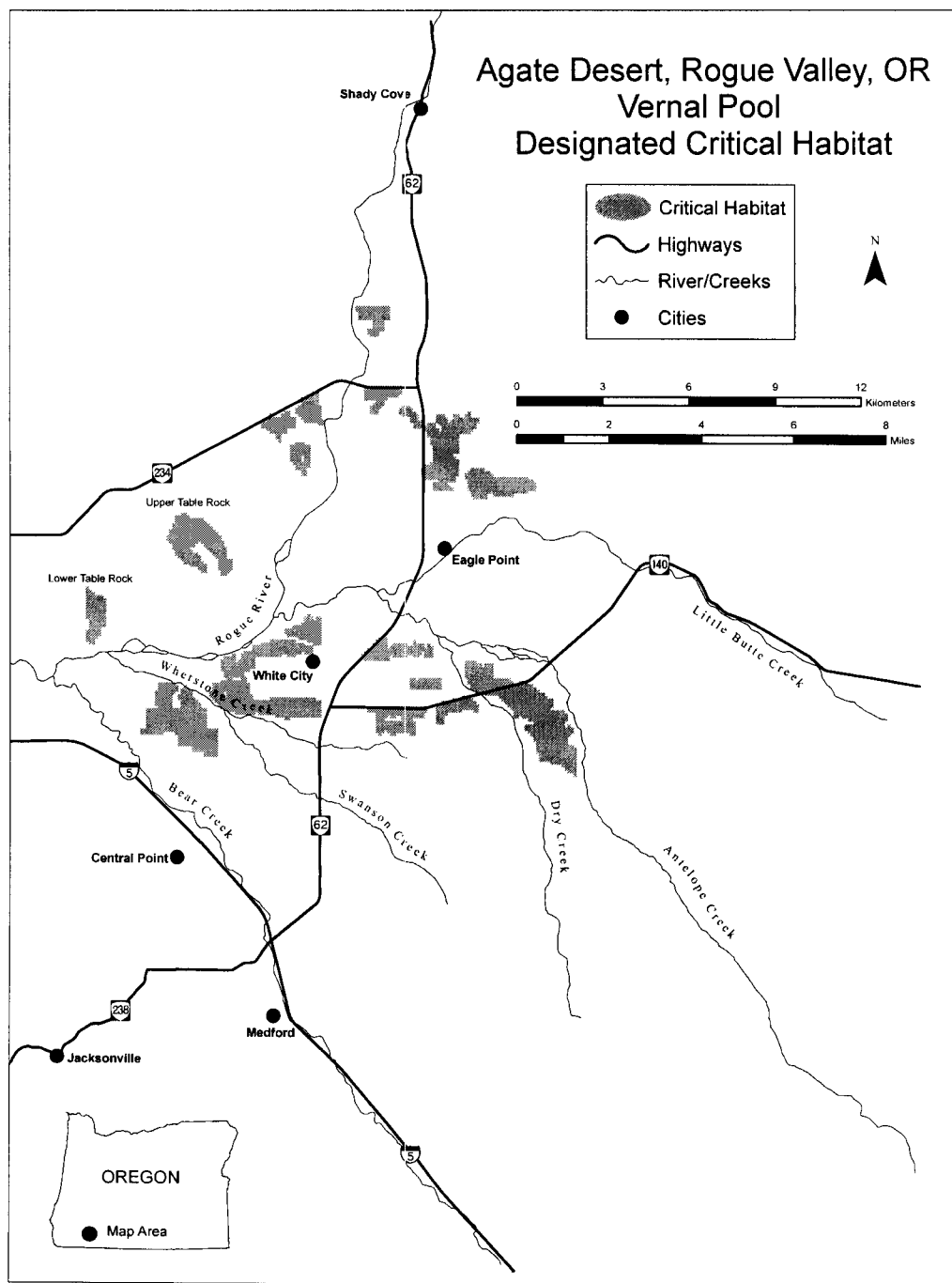
C. **Suitability Criteria** for Proposed Mitigation Actions. The suitability of any proposed mitigation project will depend on its size, location, current and anticipated long-term ecological condition, and provisions for adequate long-term management. The following standards and guidelines will be applied:

1. Site and Size Suitability—

- a) Mitigation sites must be of sufficient size to provide a high likelihood of maintaining ecological value and function in perpetuity.
- b) The mitigation parcel must include sufficient area to maintain the hydrologic regime, soils, topography, and vegetative conditions that provide suitable habitat for the typical suite of vernal pool species.¹
- c) The actual size and conditions that will allow a specific parcel of land to satisfy the criteria above will vary depending on the specific impacts the project is intended to mitigate, and the current and likely long-term uses of adjacent and nearby lands. However, in general, it is assumed that large, contiguous parcels of 100 acres or more have a higher likelihood of providing adequate functions over the long-term than smaller parcels when located within areas in which the surrounding land uses are not compatible with

¹ In most cases, this will necessitate inclusion of not only the wetland portion the vernal pools, but also surrounding upland mounds and adjacent areas that adequately buffer the vernal pool habitats against ecological edge effects and effects from adjacent and nearby land use. This buffer or “protective fringe” will be particularly important with regard to protecting the vernal pool habitat from disruptions in water supply and hydrology, and degradation of the quality of the water within the vernal pool habitats.

Figure 2: Vernal Pool Fairy Shrimp Designated Critical Habitat in the Rogue Valley



long-term vernal pool conservation. Smaller parcels may be adequate when they exist as ecologically connected “satellite” areas to the larger sites described above. Smaller parcels (10-100 acres) may also be adequate in isolation if they exist within areas in which surrounding land uses are expected to be compatible with long-term vernal pool conservation.

To be acceptable under this program, the total effective size of a mitigation project must therefore be at least 100 contiguous acres. Effective size means that the agencies will consider adjacent, permanently protected parcels that are dedicated to vernal pool conservation as part of the acreage total even if they are owned and managed by another party. For example, a 10 acre mitigation proposal could be approved under this proposal if it has uninterrupted continuity of soils, water flows, and topography with an adjacent approved mitigation or conservation project of 90 acres.

- d) As mentioned above, sites proposed for “Protect and Manage” mitigation must meet the 70th percentile ranking of the function assessment scores to qualify.
- e) Except for creation mitigation, which must prove sustainable performance before credit can be recognized, all mitigation sites must have an intact hardpan layer.
- f) Location and management of mitigation areas should effectively address threats from waste dumping, off-road vehicle trespass, and the introduction of invasive, non-native species.
- g) Mitigation actions proposed for lands that are already designated for conservation purposes (e.g., parks, green spaces, state or federal wildlife management areas, municipal watershed lands) must provide benefits to vernal pool habitats and species above and beyond those resulting from the current conservation status of the lands.
- h) To the extent possible, mitigation areas should be sited in such a way that activities proposed for development and maintenance of the sites will not result in adverse effects to state or federally listed species or vernal pool habitats outside of the proposed mitigation area.
- i) Mitigation projects may be composed of a single contiguous parcel of land or several geographically separate parcels, provided each parcel satisfies the criteria described above.

2. Financial Assurances and Long-Term Management.

- a) Short-Term Financial Assurances. Owners of mitigation areas will be

responsible for monitoring and maintaining performance standards throughout the regulated life of the mitigation areas (generally 5 years after the last credit is sold or utilized) unless the agencies approve transfer of the permit or mitigation area approval agreement to another party. To ensure mitigation actions are completed, sufficient funds to implement the approved mitigation plan in the event of financial default or ecological failure during this time frame must be set aside in an escrow account or equivalent security. Financial assurances may be in the form of performance bonds, irrevocable trusts, escrow accounts, casualty insurance, letters of credit, or other approved financial instruments. Mitigation areas and actions with higher likelihood of success will require less financial assurances than those with greater risk or uncertainty. Financial assurances may be phased-out or reduced over time as the bank becomes more functionally mature and self-sustainable in accordance with performance standards.

- b) Long-Term Financial Assurances. Owners of mitigation areas will also be responsible for securing adequate funding to monitor and maintain mitigation projects in perpetuity. The agreements (with the Agencies) that allow for approval of the proposed mitigation will include requirements for quantifying and providing adequate funding for the mitigation area's perpetual operation, management (including reasonably foreseeable contingency and remedial actions), and monitoring. Since the management of the mitigation area will be in perpetuity, a good strategy for long term funding is to establish a non-wasting management endowment (i.e., a fund that generates enough interest each year to cover the costs of the yearly management). This endowment could be established by including the cost of management into the price per credit. As credits are sold, an agreed-upon portion of the proceeds can be deposited into a non-wasting endowment fund or escrow. The mitigation project owner may have to supplement the endowment at the end of the time limit, if all of the credits have not been sold.
- c) Protection-in Perpetuity. The area used as mitigation must be protected in perpetuity and under the provisions of a long-term management plan. A long-term steward(s) responsible for implementing the plan must be identified and the long-term financial assurances discussed above must be available to the steward to satisfy long-term management obligations. A conservation easement held by a 3rd party steward with a conservation mission is the preferred method to ensure that management of the site consistent with the mitigation goals is secure in perpetuity. There may be other mechanisms to ensure equivalent levels of protection, but such alternatives must receive concurrence of the Agencies.

D. Mitigation Service Areas. Mitigation areas are approved to offset adverse impacts from development projects within a designated geographic area known as the service area. The program described in this public notice will generally consider the entire

geographic region to which the program applies (Figure 1) as the service area for mitigation projects that meet program criteria. However, within this broad provision, the “closest bank” concept will also apply; impacts will most typically be expected to be offset through utilization of a mitigation area that is nearest in proximity to the impacting project. The Agencies will determine whether use of less proximal mitigation areas is appropriate or desirable based on a review of the specific nature of the impacts and available mitigation areas.

- E. Ecological Performance Standards and Monitoring. The Agencies determine mitigation to be successful when monitoring has demonstrated that a mitigation area has reached previously agreed upon thresholds of dominance by native species, minimum presence of invasive species, hydrology adequate to meet the wetland definition, and other factors, and that these conditions are sustainable over time with minimal active management.
1. Performance Standards. The agencies will determine mitigation to be successful when the mitigation site reaches the following performance standards:
 - a) Vernal Pool topography performance criteria—
 - 1) Pools exhibit a slope of less than 2 percent from pool margin to pool bottom, or within 80 % of the range of reference site pool slope angles, as measured to the nearest ½ foot vertical and 3 feet horizontal.
 - 2) Size and distribution of vernal pools is within 80% historical condition based on available historical photography or other suitable evidence of historical condition.
 - b) Vernal Pool Hydrologic Regime performance criteria—
 - 1) Pools show evidence of inundation from Nov 1 through March 31, or within 80 % of the range of reference site pools inundation season, within three years.
 - 2) 10 percent of the pools are inundated for a minimum of seven consecutive weeks, or within 80 % of the range of reference site pools minimum inundation season, within three years.
 - 3) Water ponded in the center of vernal pools shall be between 3 and 6 inches deep, or within 80 % of the range of reference site pool depths, within three years.
 - 4) Hydrology indicators sufficient to meet the DSL and Corps jurisdictional wetland criteria must be met within five years.
 - c) Vernal Pool Vegetation performance criteria—
 - 1) The percent of invasive species within the pools shall be less than 10 percent after five years. (See www.fws.gov/oregonfwo under “Agate

Desert Conservation Initiative” for a list of plants considered to be invasive.)

- 2) Relative percent cover of native species shall be greater than 75 percent, or within 80 % of the range of reference site pool native vegetative cover, with at least 40% of reference after first and second growing seasons, 50% by year 3, 60% by year 4, and 80% by year 5.
- 3) Relative percent cover of vernal pool focal species is greater than 25 percent, with at least five of these species being present. By year 3, the percent cover of each of 5 such plant species must exceed 5%, and by year 5 the percent cover of 5 plant species must exceed 10% cover with the cumulative cover of these species being 25% or greater. (See www.fws.gov/oregonfwo under “Agate Desert Conservation Initiative” for a list of vernal pool focal plant species.)
- 4) Relative percent cover of woody species will be within 80 % of the range of reference sites within five years. (See above referenced website for a list of woody species.)
- 5) In the long-term, management actions may not result in a decline in the diversity or cover of focal species.

d) Agate Desert upland mound performance criteria—

- 1) The percent of invasive species above and in between the pools shall be less than 10 percent after five years. (See above referenced website for a list of plants considered invasive.)
- 2) Relative percent cover of native species shall be greater than 75 percent, or within 80 % of the range of reference site pools, with at least 40% of reference after first and second growing seasons, 50% by year 3, 60% by year 4, and 80% by year 5.
- 3) Relative percent cover of Agate Desert Upland focal species is greater than 25 percent, with at least five of these species being present. By year 3, the percent cover of each of the species must exceed 5%, and by year 5 the percent cover of each must exceed 10% cover with the cumulative cover of these species being 25% or greater. (See above referenced website for a list of focal plant species.)
- 4) Relative percent cover of woody species will be within 80 % of the range of reference sites within five years. (See above referenced website for a list of woody species.)
- 5) In the long-term, management actions may not result in a decline in the diversity or cover of focal species.

e) Vernal Pool Wildlife and Invertebrate Species performance criteria—

- 1) Within 10 years, a minimum of 10 percent of the pools (on average) should have documented annual occurrence of fairy shrimp, and other evidence that a fairy shrimp population can be sustained on the mitigation area over time.

- 2) Management actions may not result in a reduction in occupancy by fairy shrimp or the overall suitability for fairy shrimp compared to conditions that exist at the time the mitigation area is established.

For all of the performance criteria above, the Agencies recognize that unusual weather conditions (such as precipitation greater or less than 30% of normal) may necessitate short-term deviation from applicable thresholds. The type and extent of allowable deviations will be based on comparison to conditions at the appropriate reference sites.

- 2) **Monitoring.** Monitoring adequate to demonstrate that applicable performance standards have been achieved and are sustainable over time will be required. The best available information indicates that success of vernal pool systems can not adequately be measured in five years, but that at least 10 years will be required.
 - a) Annual monitoring reports will be required for years 1 through 5 after initial mitigation actions, and after any remedial grading. Monitoring reports will also be required in years 7 and 10 after establishment. These monitoring reports will be submitted to DSL, the Corps, and USFWS.
 - b) Monitoring will employ standard, unbiased methods including selecting representative locations for sample plots, sufficient number of sample plots to characterize the area, sampling during the appropriate season(s) when plants and other physical and biotic features are readily identifiable and measurable, permanent marking of sample plots, and utilization of reference sites and/or reference data appropriate to the given location and ecological features of the mitigation area.
 - c) Failure to meet performance standards for two consecutive years will trigger a requirement for remedial action. Remedial action will re-start the monitoring report sequence.
 - d) Once monitoring demonstrates that a mitigation area has met all performance standards and sustains these conditions for at least five seasons, the site may be transferred to the care of an approved long-term steward. After this point, monitoring reports will be required to be submitted every five years.

F. Mechanisms for Implementing Mitigation Actions.

1. Project-Specific Mitigation. Actions undertaken by a permittee to compensate for impacts resulting from his specific project. The permittee performs the mitigation after a permit is issued and before impacts from development occur. The permittee is ultimately responsible for implementation and success of the mitigation. Depending on the size the specific project and associated impacts, some project-specific mitigation areas may not satisfy the size suitability criteria in section C.1. and therefore would not be eligible for inclusion in the program

described in this public notice.

2. Consolidated Mitigation – Individual large mitigation projects each serving to compensate for impacts resulting from multiple development projects. Consolidated mitigation includes:
 - a) Mitigation and Conservation Banks are areas designated expressly for the purpose of compensating for unavoidable impacts in advance of development actions. Banks are established through a formal agreement or "Instrument" signed by the regulatory Agencies and a bank sponsor. Once a bank is approved, the sponsor performs the restoration, enhancement, or protection and management activities to generate wetland credits. The regulatory agencies will release credits for sale by the sponsor once the bank meets the performance standards. The sponsor, rather than the credit purchaser, is ultimately responsible for implementation, maintenance and success of the mitigation bank. Bank sponsors may be individual citizens, corporate entities, or local, county, or state governmental entities. There are specific state and federal regulations that describe the specifics of mitigation banking, and it is the intent of the Agencies issuing this proposal to encourage banking.
3. Local Land Use Planning. Local, county, or regional governments may choose to utilize land use planning processes and authorities to formally designate portions of the landscape as mitigation areas in advance of anticipated development within the jurisdiction. This may occur through:
 - a) A comprehensive planning process in which mitigation areas are reserved to offset impacts within other portions of the landscape that have been formally designated for development. Designation of both mitigation areas and development areas might be sufficient to allow for advance identification of potential impacts and programmatic determination of the adequacy of the proposed mitigation. Such a programmatic determination could substantially reduce the review and approval necessary for individual development projects.
 - b) Mitigation areas might also be designated through less comprehensive land use planning in which the locations, types, and amounts of development impact are not identified in advance but pre-identified mitigation areas would be available on an “as-needed” basis. Review and approval of individual development projects would still be required, but developers and local jurisdictions would have more certainty about the amount, type, and location of available mitigation, and the likelihood of it being adequate to offset impacts of proposed projects.

Procedures and Timelines

A. Current Regulatory Process.

Approval of development activities that may impact vernal pool habitats and species is currently subject to a wide range of regulatory reviews and procedures. Project proponents must typically seek individual permits from the DSL and/or the Corps. These agencies then review permit applications for consistency with either the CWA or RFL. The review process includes publication of a Public Notice and a public comment period. In the case of CWA permits, the Corps must also consult with FWS for consistency with ESA if listed species or critical habitat may be affected. FWS issues a Biological Opinion to the Corps, which results in ESA compliance both for the Corps' action and the CWA permit applicant's proposed action. In cases where only a R-FL permit is required from DSL (or neither a R-FL or CWA permit is required) and listed species may be impacted, the permit applicant becomes responsible for attaining ESA compliance, specifically through a separate section of the ESA which requires issuance of an incidental take permit from the FWS contingent upon the applicant developing an acceptable Habitat Conservation Plan. Depending on the nature of a proposed project, the jurisdictional issues of the Corps, DSL, and FWS may greatly overlap or may be very distinct, with each agency's authorities limited to only specific aspects of a project. Accordingly, permit terms and conditions and mitigation actions required by each agency for the same project may vary. Similarly, development of mitigation banks that could help streamline regulatory approval are subject to different processes; the Corps and DSL determine the standards, products, and procedures for wetland mitigation banks, while the FWS determines such things for species conservation banks.

B. Proposed Alternative Regulatory Process.

The program described in this public notice will provide an additional alternative to the regulatory process described above as follows:

1. A Federal Regional General Permit (RGP) and state General Authorization (GA) will be established by the Corps and DSL, respectively, to cover activities that satisfy the provisions and standards of this program. As part of this effort, the Corps and DSL will develop a special joint permit application form for vernal pool projects. In addition to information required to address wetland regulatory issues, the application will also require information related to ESA listed species. The FWS will then develop a Biological Opinion (BO) and Incidental Take Statement (ITS) for the RGP and GA. The ITS will cover not only the Corps' and DSL's actions, but also third-party actions that are subsequently authorized under the RGP and GA.
2. The Corps and DSL anticipate that their respective authorizations will be developed during the summer of 2007 through the usual process including public notice, review, and comment. Once developed, the Corps will then formally initiate consultation with FWS as necessary to develop the BO and ITS. It is assumed that even prior to formal initiation of consultation, the Corps and DSL will have engaged in extensive

advance collaboration and coordination with FWS to ensure ESA consistency and allow for an expedited timeframe for issuance of the BO and ITS. Under this scenario the FWS anticipates issuing a BO and ITS approximately 60 days after the Corps formally initiates consultation.

3. Once the RGP, GA, and BO and ITS are in place, the Corps and DSL anticipate that 30-60 days will be necessary for processing, review, and permitting decisions for each complete permit application that meets all the qualifying specifications. Currently the process may take up to 120 days.
4. Corps and DSL decisions will then be forwarded to the FWS for a determination of consistency with the BO and ITS. Unless the FWS does not concur with the Corps or DSL decision or otherwise determines that the subject project is not consistent with the BO and ITS, the final determination of the Corps and DSL will result in ESA compliance for the subject project.
5. With respect to mitigation areas, those areas established consistent with the provisions of this program will serve as combined wetland mitigation areas and species conservation areas. Each "credit" approved for a mitigation area could be used to satisfy either wetland or species mitigation obligations, or, in some cases, both concurrently.
6. The Agencies will likely utilize an interagency team to review vernal pool permit applications and proposals related to establishment and utilization of mitigation areas to determine whether all qualifying specifications are satisfied. The Corps, DSL, and FWS will retain their respective jurisdictional decision-making authorities, but to the greatest extent practicable and permissible, the processes, standards, and products utilized by the interagency team to address CWA and R-FL issues will also be used to address ESA issues. This interagency approach could further streamline and expedite the processes described under # 3 and # 4 for wetland permit decisions and under # 5 for mitigation area establishment.

The specific procedural and informational requirements necessary for compliance with this program will be more clearly defined in the Regional General Permit, General Authorization, and Biological Opinion developed by the Agencies. The Agencies anticipate that this new process will be available sometime in late 2007.

Request for Comments and Review

The Agencies are requesting review and feedback from the public on the proposed actions described in this document. Comments on any aspect of the document are encouraged, but the Agencies are especially interested in comments related to the following specific issues:

- Mitigation ratios for determining impacts and wetland credits.
- Vernal pool creation mitigation.
- Length of Monitoring Period to determine mitigation success.

- Performance criteria for mitigation projects.
- Substantive and/or time constraints on the initial "trial" period of this program.
- Additional incentive for use and establishment of banks and large scale mitigation areas for species and habitats included in the program.
- Value of a "development fee" to help provide a source for long term management endowments to manage mitigation areas.

The Agencies will also host a public workshop to address questions, solicit comments, and provide more information related to the guidelines proposed in this document. This public forum will occur on Wednesday, June 20th, from 5:30-7:30 pm at the Rogue Valley Sewer Services conference room at 138 W. Vilas Road in Central Point.

Agency Contacts:

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Literature Cited

(USFWS) U.S. Fish and Wildlife Service. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon. xxvi + 606 pages.

(USFWS) U.S. Fish and Wildlife Service. 2006. Draft Recovery Plan for Listed Species of the Rogue Valley Vernal Pool and Illinois Valley Wet Meadow Ecosystems. Portland, Oregon. xiii + 136 pages.

Plant Lists

Please see www.fws.gov/oregonfwo under Agate Desert Conservation Initiative for the plant lists referenced in this document.